

REMARKS

This Amendment is submitted in response to the Official Letter dated March 10, 2005. Favorable reconsideration of the application, as amended, is respectfully requested in view of the following remarks. Claims 1, 5, 11, 12, 16 and 20 have been amended to clarify and better define the invention. Claims 1-20 are pending, with Claims 1 and 12 being independent.

The Examiner rejected Claims 12 under 35 U.S.C. 112 as being indefinite for lacking support in the specification. Claim 12 has been amended to clarify the claim language. Therefore, this rejection should be withdrawn.

The Examiner rejected Claims 1 through 20 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,028,038 to Haigh (hereinafter Haigh) or that which is disclosed in the Applicants' Specification, in view of U.S. Patent 5,163,500 to Seaton et al. (hereinafter Seaton). In light of the amendments to the claims, this rejection is respectfully traversed.

As amended, Claim 1 now defines the invention as a mold rollover apparatus for removing a cast part from a partial mold member comprising a wheel member defining a first axis and being selectively rotatable about the first axis. The apparatus also includes at least one carrier member carried by the wheel member and adapted to carry the partial mold member having a prior formed cast part disposed therein wherein a portion of the cast part is exposed. The at least one carrier member is selectively rotatable from a first position, wherein the cast part is generally retained in the partial mold member, to a second position, wherein the cast part is generally free to fall or drop from the partial mold member. The at least one carrier member is selectively rotatable about a second axis from the first position to the second position. Neither of the cited patents discloses or suggests, alone or in combination, such a mold rollover apparatus as recited in Claim 1.

Both the Haigh and Seaton references disclose a closed and complete mold. The complete mold is required in both of these references since the part forming material for forming the cast part is introduced during the processes shown in both references. As is known in the art, when molding a cast part, a first mold member is typically secured to a second mold member to form a complete mold. A part forming material is then introduced into a cavity defined inside the mold to form the cast part. The mold can then be processed to cool the mold and cure the cast part. Once the cast part is solidified, the two mold members are separated and the cast part is removed.

The Haigh reference discloses a rotational molding machine having multiple carriers where each of the carriers carries a closed complete mold from a loading station to a heating station to a cooling station to an unloading station. In particular, Haigh discloses a mold being loaded at Station F, being heated in three compartments of an oven at stations A, B, and C. Stations D and E are cooling stations, and the entire complete mold is unloaded at Station F (See Column 5, Lines 23-30).

Therefore, the cast part is formed during the entire process disclosed therein. Nowhere in Haigh is it disclosed to provide a partial mold or to open the mold or to remove the part being formed during the molding process. In fact, if the mold were a partial mold or opened during the process shown in Haigh, no part could be formed. Thus, Haigh does not disclose or suggest a mold rollover apparatus having “at least one carrier member carried by said wheel member and adapted to carry said partial mold member having a prior formed cast part disposed therein wherein a portion of said cast part is exposed, said at least one carrier member being selectively rotatable from a first position, wherein the cast part is generally retained in said partial mold member, to a second position, wherein the cast part is generally free to fall or drop from said partial mold member, as recited in Claim 1. (Emphasis added).

Seaton discloses a rollover mechanism wherein the mold is a part of a filling station and then rotated before being unloaded. The mold is filled and rolled over at a single station. However, the part is not fully formed until a later time. In particular, Seaton states, "[e]xiting mold chambers 14' proceed down the conveyor 70 for about 8 minutes to ensure complete solidification." (Column 6, Line 61-63). Therefore, the part is not formed within the mold until a later time and location. In fact the part that is being formed cannot be removed until a later position and in a separate operation from the disclosed process. If the mold of Seaton were opened during the rotation process described, the part to be cast would not be properly formed thereby destroying the function of the invention. This is in contrast to the present invention where the cast part is "prior formed" and is exposed during the rotation process so that the cast part can be removed from the mold member. Thus, Seaton does not disclose or suggest a mold rollover apparatus having "at least one carrier member carried by said wheel member and adapted to carry said partial mold member having a prior formed cast part disposed therein wherein a portion of said cast part is exposed, said at least one carrier member being selectively rotatable from a first position, wherein the cast part is generally retained in said partial mold member, to a second position, wherein the cast part is generally free to fall or drop from said partial mold member, as recited in Claim 1. (Emphasis added).

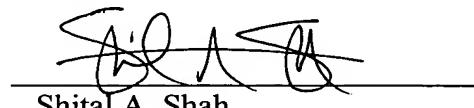
Despite being rotated and repositioned, the material within the complete molds of both Haigh and Seaton remain entirely within the respective complete molds. There is no disclosure, suggestion, or reason to open the complete molds shown in either Haigh or Seaton to remove a cast part. In fact, if either complete mold were opened so that only a portion of a mold were utilized with the rotation mechanisms shown in the respective references, the function and purpose behind the inventions of each respective reference would be destroyed. The prohibition against destroying the function of the design is inherent in the logic behind combining references to render a claimed invention obvious under 35 U.S.C. 103(a). If the proposed combination of the references alters the primary reference in such a way that its broad function can no longer be carried out, clearly the combination of the prior art would not have been obvious to one of ordinary skill in the art. It is permissible to modify the primary reference to the extent that the specific function of the article may be affected. However, the broad function cannot be affected. Therefore, the Haigh and Seaton references cannot be combined with the Applicants' admitted prior art without destroying the invention of the references.

With respect to the Specification where the Applicants discuss the prior art, the Applicants disclosed an open mold member on a wheel. However, there is no disclosure or suggestion to selectively rotate a carrier member about the second axis from a first position to a second position. Therefore, none of the references disclose or suggest, or can be combined to disclose or suggest, the Applicants' invention and the Examiner's rejection of Claim 1 should be withdrawn. Accordingly, it is believed that Claim 1, along with dependent Claims 2-11, are patentable over the cited references.

Claim 12 contains similar limitations to that of Claim 1. Accordingly, for those reasons discussed above with respect to Claim 1, it is believed that Claim 12, along with dependent Claims 13-20, are patentable over the cited references.

In view of the above amendments and accompanying remarks, it is believed that the application is in condition for allowance. However, if the Examiner does not believe that the above remarks and amendments place the application in condition for allowance, or if the Examiner has any comments or suggestions, it is requested that the Examiner contact Applicants' attorney at (419) 255-5900 to discuss the application prior to the issuance of an action in this case by the Examiner.

Respectfully submitted,



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